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KAM-KOTIA MINES LIMITED



1966 Annual Report

FINANCIAL HIGHLIGHTS

	<u>1966</u>	<u>1965</u>
Gross Metal Revenue ..	\$7,769,000	\$6,969,000
Net Income	\$1,965,000	\$ 765,000
Per Share Net	\$0.46	\$0.18
Retained Earnings	\$5,089,000	\$3,549,000

ANNUAL MEETING of the Shareholders of Kam-Kotia Mines Limited will be held on Thursday, April 20, 1967, at 2:30 P.M. in the Territories Room, Royal York Hotel, Toronto, Ontario.

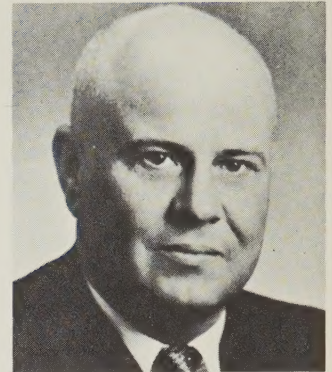
APR - 6 1967

KAM-KOTIA MINES LIMITED

DIRECTORS	A. W. WHITE - - - - - Toronto, Ontario D. F. BURT - - - - - Toronto, Ontario G. W. WALKEY - - - - - Timmins, Ontario B. WILLENBORG - - - - - Miami, Florida A. W. McDONALD - - - - - Maitland, Ontario J. J. WHITE - - - - - Burlington, Ontario J. GEDDES - - - - - Clarkson, Ontario
OFFICERS	A. W. WHITE - - - - - President D. F. BURT - - - - - Vice-President H. R. HEARD - - - - - Secretary-Treasurer J. GEDDES - - - - - Assistant Secretary L. V. BARBISAN - - - - - Assistant Treasurer G. W. WALKEY - - - - - General Manager
COBALT REFINERY DIVISION Manager Refinery Office Address	J. N. CRAM R.R. #1, Cobalt, Ontario
WESTERN DIVISION Mine Manager Mine Office Address	J. C. BLACK New Denver, British Columbia
TRANSFER AGENTS AND REGISTRARS	The Sterling Trusts Corporation - - Toronto, Ontario Crown Trust Company, Vancouver, B.C., and Calgary, Alta. Canadian Bank of Commerce Trust Company - - - - - New York, N.Y.
STOCK LISTED	Toronto, Canadian, Calgary and Vancouver Stock Exchanges
SOLICITORS	Burt, Burt, Wolfe & Bowman - - Toronto, Ontario
AUDITORS	Thorne, Gunn, Helliwell & Christenson - Toronto, Ontario
BANKERS	Canadian Imperial Bank of Commerce
HEAD OFFICE	25 Adelaide St. West, Suite 416 - Toronto, Ontario
MINE OFFICE ADDRESS	Box 290, Timmins, Ontario

KAM-KOTIA MINES LIMITED

President's Report to Shareholders



ARTHUR W. WHITE

A record net income of \$1,965,371 (46.3 cents per share) was earned in 1966. This compares with \$765,052 or 18 cents per share in 1965.

IMPORTANT EVENTS

January 31, 1966

Acquisition of assets and assumption of liabilities of wholly-owned subsidiary Kam-Kotia Porcupine Mines, Limited. (This company subsequently surrendered its charter).

March 11, 1966

Supplementary letters patent issued changing company name from Violamac Mines Limited to Kam-Kotia Mines Limited.

October 28, 1966

Payment of Dividend No. 1 — 10 cents per share.

November 30, 1966

Acquisition of assets and assumption of liabilities of wholly-owned subsidiary Cobalt Refinery Limited.

Both the Kam-Kotia Mine and the Cobalt Refinery are now operating divisions of Kam-Kotia Mines Limited.

KAM-KOTIA MINE

In 1966, the Kam-Kotia mine produced 12,706,672 pounds of copper and 8,734,287 pounds of zinc from 464,726 tons of ore grading 1.67% copper and 1.965% zinc. In addition, the mill processed 100,732 tons of ore on a custom basis for Texas Gulf Sulphur Company. A profit of \$665,749 accrued to Kam-Kotia from providing this service.

Shaft deepening to 1,974 feet was completed early in 1967, which will establish four new levels for mining. These levels are being driven out to the ore area indicated by diamond drilling from the 5th level.

Several changes are being made which, it is anticipated, will increase tonnage, improve mill efficiency and raise production. These include:

- Revisions to the milling circuit

- A surface hoist having a larger capacity

- A new crusher in the surface plant

- Installation of a crusher underground

- A high voltage power line.

COBALT REFINERY

A loss of \$207,565 was experienced in 1966 on the operation of Cobalt Refinery. Although this is lower than the 1965 loss, results are still unsatisfactory. Extensive engineering and metallurgical analyses are in progress to develop procedures designed to improve operations at the refinery.

WESTERN OPERATIONS

The resumption of work on the property of Silmonac Mines Limited was undertaken during the year using Kam-Kotia's New Denver staff and equipment. Kam-Kotia holds a substantial interest in Silmonac Mines Limited.

Mr. J. C. Black, Manager of our Western operations, reports that exploration activities conducted during the year in Southern British Columbia did not lead to acquisition of any properties.

DIVIDENDS

A second dividend of 10 cents per share has been declared payable May 5, 1967, to all shareholders of record April 7, 1967.

JAMELAND MINES LIMITED

Results from drilling the Jameland property are most encouraging. The sulphide zone being drilled is some 6,500 feet south-east of the Kam-Kotia shaft. Ore intersections are of a type similar to the Kam-Kotia ore. The exploration programme is being conducted by Kam-Kotia personnel. Major interests in Jameland are held by both Kam-Kotia and Dickenson Mines Limited.

PLENO MINES LIMITED

Cross-cutting and drilling of the Pleno property adjoining Kam-Kotia has not encountered ore. Work on this property is continuing as structure and rock types are favorable.

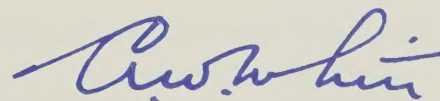
OUTLOOK

An increase of some 10 cents per pound in the price of copper was the principal reason for the company's improved 1966 earnings. There is every indication the copper price will continue near present levels in 1967.

Transfers of the business of the former subsidiaries, Kam-Kotia Porcupine Mines, Limited and Cobalt Refinery Limited, have streamlined your company's operations. Kam-Kotia Mines Limited should benefit in the future from these changes in organization.

On behalf of the directors and shareholders I wish to extend our appreciation to the employees and officers of the company for their effective work and loyal support during the year.

Respectfully submitted on behalf of the Board.



A. W. White,
President

Toronto, Ontario,
March 15, 1967.

KAM-KOTIA

(Incorporated under the laws of Ontario)
and its consolidated subsidiaries

Consolidated Balance Sheet

(with comparative figures for 1965)

ASSETS

Current Assets	1966	1965
Cash	51,256	71,683
Metal settlements outstanding, concentrates on hand and products in process at net realizable value (note 3)		
Copper	2,830,664	2,048,974
Silver and other refinery products	2,061,994	1,674,567
Custom milling charges receivable	221,439	575,516
Other accounts receivable and accrued interest	219,513	88,435
	<u>5,384,866</u>	<u>4,459,175</u>
Investments in Other Companies		
471,009 (1965 — 465,009) shares Dickenson Mines Limited at cost (quoted market value, 1966 — \$1,507,229; 1965 — \$2,092,541)	1,504,633	1,474,633
Other listed shares at cost (quoted market value, 1966 — \$343,738; 1965 — \$349,668)	439,948	419,892
Interest in non-consolidated subsidiary companies at cost less amounts written off and allowance for decline in value (note 2)	91,541	68,919
Other shares, bonds, advances and participations at cost less amounts written off and allowance for decline in value	534,190	302,424
	<u>2,570,312</u>	<u>2,265,868</u>
Fixed Assets		
Buildings, machinery and equipment at cost	5,221,649	4,830,262
Less accumulated depreciation	2,858,187	2,408,100
	<u>2,363,462</u>	<u>2,422,162</u>
Mining properties at cost	667,505	648,506
Land at cost	7,655	7,655
	<u>3,038,622</u>	<u>3,078,323</u>
Other Assets and Deferred Charges		
Supplies at average cost	331,376	330,732
Prepaid expenses and deposits	239,022	114,810
Special refundable tax	83,000	—
Shaft sinking and development expenditures less amounts written off	830,556	593,768
Interest in and expenditures deferred on outside mining claims	12,961	25,194
	<u>1,496,915</u>	<u>1,064,504</u>
	<u>\$12,490,715</u>	<u>\$10,867,870</u>

AUDITORS' REPORT TO SHAREHOLDERS

We have examined the consolidated balance sheet of Kam-Kotia Mines Limited and its consolidated subsidiary companies as at December 31, 1966 and the consolidated statements of income, retained earnings and source and application of funds for the year then ended. Our examination of the financial statements of Kam-Kotia Mines Limited and the subsidiary companies of which we are the auditors, included a general review of the accounting procedures and such tests of accounting records and other supporting

MINES LIMITED

s of Ontario)

subsidiary companies

December 31, 1966

December 31, 1965)

LIABILITIES

Current Liabilities

	1966	1965
Bank loans, secured (note 4)	602,270	1,619,616
Refinery settlements payable to shippers of concentrates and metallics	971,574	980,345
Smelter settlements payable to shipper of custom ore	859,115	348,209
Other accounts payable and accrued liabilities	609,280	471,601
Taxes payable	544,160	84,404
	<u>3,586,399</u>	<u>3,504,175</u>

Shareholders' Equity

Capital stock

Authorized — 5,000,000 shares of \$1 each

Issued — 4,247,500 shares

Deduct discount less premium

Retained earnings

Approved on behalf of the Board:

A. W. WHITE, Director.

JAMES GEDDES, Director.

\$12,490,715

\$10,867,870

SHAREHOLDERS

evidence as we considered necessary in the circumstances. We have relied on the report of the auditors who have examined the financial statements of the subsidiary company, Cobalt Refinery Limited.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1966 and the results of their operations and the source and application of their funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

GUNN, ROBERTS and CO.

Chartered Accountants

KAM-KOTIA MINES LIMITED

Consolidated Statement of Income

Year ended December 31, 1966

(with comparative figures for 1965)

Mining	1966	1965
Revenue		
Metal recovery, gross value	7,768,986	6,968,966
Deduct transportation and treatment costs	<u>2,012,889</u>	<u>1,960,320</u>
	5,756,097	5,008,646
Expenses		
Development and mining	1,834,639	1,903,065
Milling	712,313	799,562
Mine management, office and general property expenses	438,436	399,981
Ontario mining tax	99,000	84,000
Head office administrative and general expenses	203,916	173,074
Interest expense	<u>12,195</u>	<u>102,178</u>
	3,300,499	3,461,860
Operating income before depreciation and amortization	<u>2,455,598</u>	<u>1,546,786</u>
Deduct		
Depreciation (note 5)	457,680	427,460
Amortization of shaft sinking and development expenditures (note 5)	<u>218,230</u>	<u>218,230</u>
	675,910	645,690
Operating income	1,779,688	901,096
Income from Custom Milling after expenses which include depreciation of \$53,018 (1965 — \$15,399)	<u>665,749</u>	<u>158,356</u>
	2,445,437	1,059,452
Investment Income		
Dividends from Dickenson Mines Limited	70,351	111,602
Other dividends, interest, and royalties	16,394	4,698
(Loss) profit on sale of shares	<u>(4,456)</u>	<u>26,600</u>
	82,289	142,900
	2,527,726	1,202,352
Deduct		
Loss on operation of refinery, including depreciation of \$110,195 (1965 — \$105,670)	207,565	347,359
Outside exploration expenditures written off	4,790	46,162
Minority interest in net income of subsidiary company	<u>—</u>	<u>43,779</u>
	212,355	437,300
Income before income taxes	2,315,371	765,052
Income taxes (note 6)	<u>350,000</u>	<u>—</u>
Net Income for the year	<u>\$1,965,371</u>	<u>\$ 765,052</u>

Consolidated Statement of Retained Earnings

Year ended December 31, 1966

(with comparative figures for 1965)

	1966	1965
Balance at beginning of year	3,548,875	2,783,823
Net income for the year	<u>1,965,371</u>	<u>765,052</u>
	5,514,246	3,548,875
Deduct dividend paid — 10¢ per share	<u>424,750</u>	<u>—</u>
Balance at end of year	<u>\$5,089,496</u>	<u>\$3,548,875</u>

KAM-KOTIA MINES LIMITED

Operation of Refinery

Year ended December 31, 1966
(with comparative figures for 1965)

	1966	1965
Sales of metals and products	5,332,942	5,190,092
Cost of Sales		
Inventory January 1	1,473,724	1,722,068
Purchases of concentrates and metallics	4,918,780	4,550,558
Direct costs of processing and refining	501,163	429,951
	6,893,667	6,702,577
Less inventory December 31	1,671,216	1,473,724
	5,222,451	5,228,853
	110,491	(38,761)
Expenses		
Selling, administrative and general	168,519	154,746
Interest	39,342	48,182
	207,861	202,928
Operating loss before depreciation	97,370	241,689
Depreciation	110,195	105,670
Loss for the year	\$ 207,565	\$ 347,359

Details of Income from Custom Milling

Year ended December 31, 1966
(with comparative figures for 1965)

	1966	1965
Revenue		
Rental fee, tonnage and other charges	910,449	227,307
Expenses		
Milling	153,817	44,426
General expenses at the property, supervision, technical services, mine office, administrative and general expenses	37,865	9,126
Depreciation	53,018	15,399
	244,700	68,951
Income from custom milling	\$ 665,749	\$ 158,356

KAM-KOTIA MINES LIMITED

Consolidated Statement of Source and Application of Funds

Year ended December 31, 1966

(with comparative figures for 1965)

Source of Funds	1966	1965
Net income for the year (1965 — before minority interest)	1,965,371	808,831
Depreciation and amortization not requiring current outlay	839,123	766,759
	<u>2,804,494</u>	<u>1,575,590</u>
Proceeds from issue of capital stock		
Shares issued for cash	—	1,120,200
Shares issued to acquire minority interest in Kam-Kotia Porcupine Mines, Limited	—	600,000
Other sources (net)	—	21,740
	<u>2,804,494</u>	<u>3,317,530</u>
 Application of Funds		
Additions to buildings, machinery and equipment	562,193	156,559
Shaft sinking and development expenditures	455,018	61,792
Investment in shares of and advances to other companies (net)	303,175	184,770
Deposit for power line construction costs	116,295	—
Special refundable tax	83,000	—
Dividend paid	424,750	—
Acquisition of shares in Kam-Kotia Porcupine Mines, Limited (minority interest)	—	600,000
Increase in supplies	644	59,600
Other applications (net)	15,952	—
	<u>1,961,027</u>	<u>1,062,721</u>
Improvement in Working Capital Position	<u>\$ 843,467</u>	<u>\$2,254,809</u>

KAM-KOTIA MINES LIMITED

Notes to Consolidated Financial Statements

December 31, 1966

1. CORPORATE CHANGES AND COMPANIES CONSOLIDATED

During 1966 the company's name was changed from ViolaMac Mines Limited to Kam-Kotia Mines Limited and it acquired the assets and assumed the liabilities of its subsidiary companies, Kam-Kotia Porcupine Mines, Limited and Cobalt Refinery Limited. The consolidated financial statements include the assets, liabilities and operations of these subsidiary companies as well as those of the subsidiary company, Deebank Limited. Since the date of the balance sheet, the charter of the subsidiary company, Kam-Kotia Porcupine Mines, Limited, has been surrendered.

2. NON-CONSOLIDATED SUBSIDIARY COMPANIES

The non-consolidated subsidiary companies have been excluded from the consolidation as they are dormant or are developing their properties and their expenditures since acquisition of control have been deferred to future operations, except for certain write-offs, security profits and custom milling losses, carried direct to deficit. The proportion of the net amount so charged to deficit attributable to the shares held by Kam-Kotia Mines Limited in such subsidiary companies for their fiscal years ended in 1966 amounts to \$62,611 (1965 — \$18,852) and for the period since acquisition of the shares amounts to \$347,006 which is substantially less than the amounts written off in respect of the investment in such subsidiary companies.

3. METAL PRICES

In computing the net realizable value of metal settlements outstanding, concentrates on hand and products in process at December 31, 1966:

- (a) Copper has been valued at 49¢ per pound less treatment charges of 7.53¢ per pound; and
- (b) silver and other products in process have been valued at net selling prices (silver \$1.40 per ounce), less costs to finish the products in process.

4. SECURITY FOR BANK LOAN

The bank loan is secured by 465,009 shares of Dickenson Mines Limited and metal settlements outstanding, concentrates on hand and products in process.

5. DEPRECIATION AND AMORTIZATION

Depreciation and amortization have been recorded on the straight line method at annual rates as follows:

Kam-Kotia Property	
Buildings, machinery and equipment	15%
Shaft sinking and underground development expenditures	25%
Refinery	
Buildings, machinery and equipment	10%

6. INCOME TAXES

In 1966 and 1965 deductions for income tax purposes for depreciation and amortization exceed the amounts provided in the accounts. As a result 1966 income taxes are reduced by \$430,000 (1965 \$310,000).

In earlier years depreciation and amortization provided in the accounts exceeded the claims for income tax purposes.

For all fiscal periods to December 31, 1966, the total of such deductions for income tax purposes exceeds the total of the provisions in the accounts by \$630,000; the tax reductions applicable thereto amount to \$220,000.

KAM-KOTIA MINES LIMITED

and its consolidated subsidiary companies

Interest in Non-Consolidated Subsidiary Companies

December 31, 1966

Shares:

1,040,000	Camarillo Oils Ltd. (including 300,000 shares in escrow)
1,607,040	Carnegie Mining Corporation Ltd.
1,141,322	Glencair Mining Co. Ltd. (including 420,000 shares in escrow)
680,710	Lithia Mines & Chemicals Ltd. (including 337,500 shares in escrow)
1,180,000	Lone Bachelor Mines Ltd. (including 675,000 shares in escrow)

Other Shares

December 31, 1966

Shares:

736,250	Abino Gold Mines Ltd. (including 5,000 shares in escrow)
58,000	Consolidated Regcourt Mines Ltd.
355,000	Gateway Uranium Mines Ltd. (including 202,298 shares in escrow)
604,000	Inore Gold Mines Ltd.
400,000	Jameland Mines Ltd.
316,650	Pleno Mines Ltd.
20,800	Robin Red Lake Mines Ltd.
666,881	Silmonac Mines Ltd. (in escrow)

KAM-KOTIA MINES LIMITED

General Manager's Report



G. W. WALKEY

The President and Directors
Kam-Kotia Mines Limited

Gentlemen:

Our report covering operations of the Robb Township property near Timmins for the year ending December 31st, 1966 is submitted hereunder.

PRODUCTION AND MILLING

Milling was carried out continuously through the year at maximum capacity with your company's ores being milled for 264 days and Texas Gulf's Kidd Creek Mine ores for 101 days. Operating time was about 96.5% of available time with balance being spent on maintenance and repairs. Daily treatment rate for Kam-Kotia ores was 1,765 tons. All mill feed was supplied from underground operations and mill heads ranged from 1.5 to 2.0% Cu and 1.65 to 2.55% Zn. The zinc circuit operated continuously and performance was improved over 1965.

There were no major changes made in the mill circuit during the year. Studies and tests were initiated late in the year to investigate the effect of finer grinding on metal recoveries, assess requirements for a 10 to 15% increase in mill capacity, and reduce grinding costs. An additional cone crusher has been ordered to provide 3 stage crushing and make finer mill feed, and this machine will be installed in the summer of 1967.

PRODUCTION DATA

	1966	Cumulative Production
Dry Tons Milled	464,726	2,723,347
Average Tons Per Day	1,765.0	1,375.0
Mill Heads % Copper	1.67	1.631
Copper Concentrate Produced		
— Dry Tons	33,592.7	188,910.17
Grade of Copper Concentrate	19.91	20.02
Pounds Returnable Copper	12,706,672	72,609,013
Copper Recovery in Milling %	86.0	86.32
Smelter Settlements Outstanding		
December 31, 1966 —		
Pounds Copper	4,345,581.2	—

	1964-1966 only	
Zinc Mill Heads %	1.965	1.579
Zinc Concentrate Tons	10,453.0	21,908.3
Zinc Concentrate Grade %	49.20	48.62
Zinc Recovery in Milling %	59.60	58.48
Ounces of Gold Paid for	672.0	1,489.7
Ounces of Silver Paid for	78,077	216,786.0

MILLING DATA

Grinding steel Consumption

(balls and rods) 3.57 lb/ton milled

Reagent	Lb/ton
Consumption	Milled
Hydrated Lime	5.055
Zanthates	0.421
Sodium Cyanide	0.048
Frothers	0.059
Zinc Sulphate	0.642
Copper Sulphate	0.396

MINING OPERATIONS

All mill feed was supplied from underground operations and surface stockpiles were increased by 42,925 tons.

Surface stockpiles are as follows at December 31st, 1966:

	<u>Tons</u>	
Zinc Ore	17,772	3.30% Zn
Low Grade Copper Stockpile	129,817	0.77% Cu
Crusher Stockpile	144,689	1.35% Cu

MINE PRODUCTION

Tonnage hoisted during the year was 507,631 tons of ore and 73,879 tons of waste. The bulk of production came from blast hole stopes with minor tonnage from shrinkage stopes and development work. Stope development expense was heavy during the year, and, at the end of the year, most of the known reserves above the 5th level were developed for mining. Broken and drilled off tonnage was 177,000 tons. Production grades closely confirmed drill indicated grades.

DEVELOPMENT

Development expense was very heavy during the year, with the main project being the deepening of No. 1 shaft by 941 feet, and the establishment of four new mining levels below the 5th level. On the 5th level and above, development was concentrated on providing access to indicated ore zones and establishing diamond drill bases for exploration. Total development footage of drifting and x-cutting, on the 5th level and above was 5,232 feet distributed as follows:

2nd	1,130.0 feet
3rd	1,464.0 feet
4th	654.0 feet
5th	1,984.0 feet

Total raising footage was 2,081.0 feet.

Development above the 5th level was suspended in October so that all efforts could be concentrated on developing the new levels below the 5th.

Shaft sinking to a planned depth of 1,974 feet was completed late in October and four

new mining levels were established, plus a crusher station, loading pocket, sump station, and a 10th level for use as future sinking base. No water was encountered in deepening the shaft and rock conditions are good. The shaft extension has been equipped with a spill pocket and loading pocket and all levels advanced to where the waste passes are located, and the waste pass raises are now being driven. Until the transfer raises are completed, work on the new levels is restricted to the hoisting capacity of the sinking hoist on the 5th level, which is being used to hoist the waste rock, until the waste can be transferred to the #2 loading pocket. The ore zone should be reached on the 6th level by drifting by February 1967, and on the 7, 8 and 9 levels by May or June. The underground jaw crusher should be installed and in operation by May 1967.

HOISTING CAPACITY

In order to provide additional hoisting capacity from present and future depths, it was decided to replace the existing mine hoist with a larger machine. Accordingly, a used 12 ft. x 84 inch 2,100 H.P. hoist was purchased and this will be installed in the summer of 1967. This machine has a rope pull of 60,000 lbs. and is capable of hoisting up to 100,000 tons monthly from a depth of up to 4,000 feet. The changeover will be made with no loss in production.

In order to use this new hoist, it is necessary to increase the capacity of the power supply, and accordingly a new 115,000 volt line is being built to replace the existing 27,800 volt line. Power from this new line should be available by late spring of 1967.

EXPLORATION

Underground exploration continued through the year at the maximum rate allowed by plant capacity. Total diamond drill footage was 85,303 feet of which 70,806 feet were for exploration and 14,497 feet for delineation of ore zones for mining. The 504 W drift was advanced 1,735 feet to the west, the 204 W drift 657 feet to the west

Underground photos on this page were taken earlier this year. At right a miner operates a jack-leg drill. Photo below shows ore being dumped in an ore pass, down to the loading pocket.



Below, after ore is blasted out from the drift heading, it is loaded on cars by a mucking machine.



and the 308 W drift 841 feet to the west all for exploratory drilling bases. The 404 W drift, was advanced 494 feet to the west to delineate the C-9 block. Most of the exploratory drilling was done above the 5th level along the strike of the ore bearing zones and west of the shaft. A minor amount of drilling was done east of the shaft from the 5th level, and some drilling was done to the north to check for possible parallel zones. Much work remains to be done to complete checking the ore potential of the block lying above the 5th level, particularly the west portion of the property. Drilling below the 5th level was suspended early in the year as this block can be more easily explored from the new levels established by shaft deepening. During the summer months, surface drilling was resumed, and 14,132 feet were drilled from surface. The bulk of this drilling was done to provide information for underground exploration of the west portion of the property above the 5th level. Some shallow drilling was done to define ore zones lying west of the main "B" zone and to outline the "A" east zone which was mined in 1966. As a result of this drilling, several potential zones were indicated which will be tested as soon as possible. In 1967, the major exploration effort will be concentrated on the new levels established by shaft deepening below the 5th level.

PLENO EXPLORATION

The 307 drift on the Pleno was extended 578 feet for a total of 1,610 feet to date. Two holes were drilled from surface for a total footage of 578.0 feet. Total underground drilling on the Pleno was 3,361.0 feet, all from the 307 drift. A narrow sulphide section with low grade Cu and Zn values was traced for several hundred feet along strike but was not of economic grade or size. Further underground drilling is planned on the Pleno.

JAMELAND MINES

A diamond drill program to check indicated sulphide zones and geophysical targets on Jameland's property south and east of Kam-Kotia was started in the summer and is

continuing. A total of 19 holes, for a footage of 12,343 feet, have been drilled to the end of the year. The bulk of the drilling was on the zone drilled by previous owners, but, two other anomalies were tested and were negative. Most of the holes on the main zone cut narrow sections of economic grade material, but, correlation is difficult and, no estimate of ore reserves is possible. Drilling will continue in 1967.

OTHER EXPLORATION

Several other properties were considered during the year but none of them merited further investigation in the staff's opinion. The staff kept abreast of developments in the area by liaison with the personnel of the other operators doing exploration work in the area.

ORE RESERVES

Ore Reserves at December 31st, 1966, are as follows, including dilution factor:

Positive and Broken Ore

- 1) 2,169,000 tons grading 1.55% Cu and 1.93% Zn.
- 2) 380,000 tons grading 0.34% Cu and 4.15% Zn.

Probable Ore

612,000 tons grading 1.54% Cu and 1.90% Zn.

Possible Ore (Drill Indicated Only)

1,200,000 tons @ 1.60% Cu and 1.50% Zn.

Total all categories as above — 4,361,000 tons.

AGREEMENT WITH TEXAS GULF

This agreement, negotiated in October, 1965, continued in force until November, 1966, at which time it was terminated at Texas Gulf Sulphur Company's request. This agreement proved to be of great value to both parties, as had been anticipated, and no problems developed in carrying out the agreement.

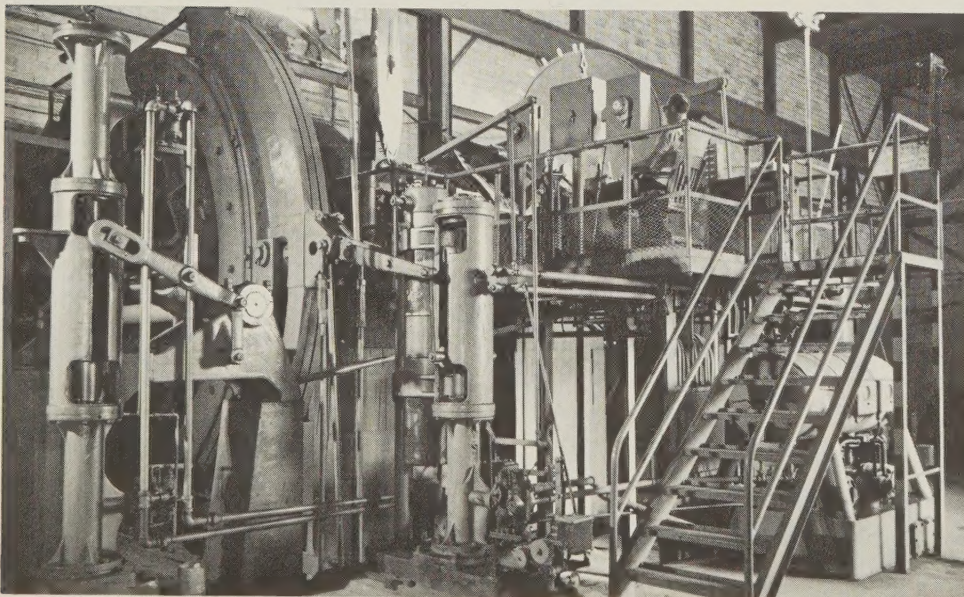
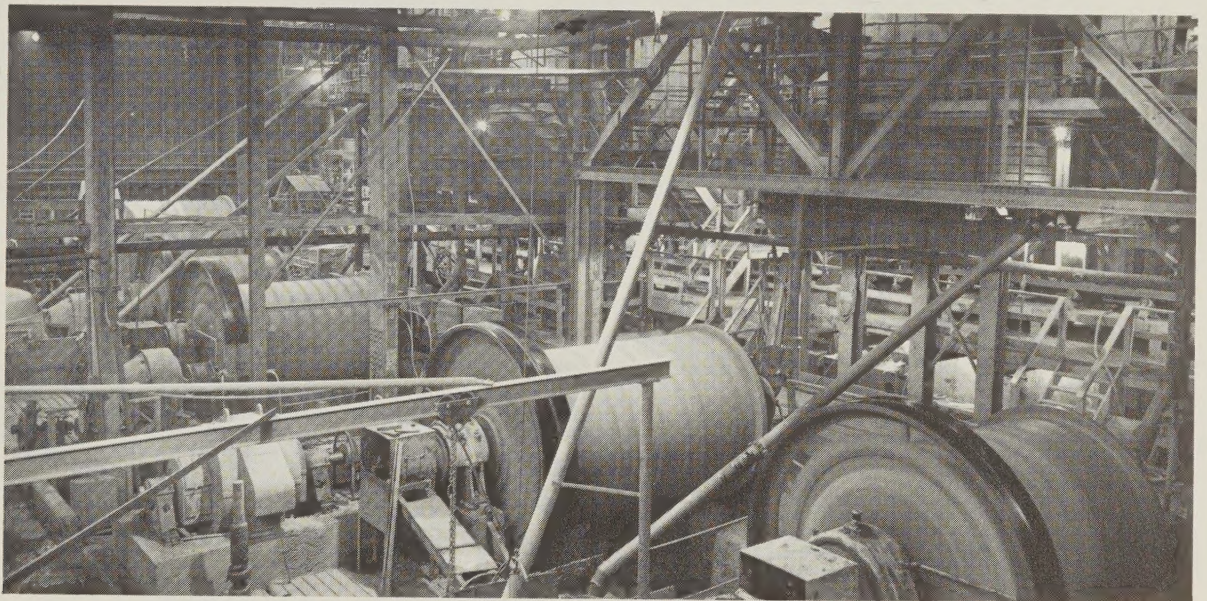
CAPITAL EXPENDITURES

Construction

- 1) A 20 x 40 foot steel framed wood sheathed addition was added to warehouse building for cold storage.



Photos from surface on this page include Kam-Kotia's assay office at left and, below, a general view of the rod and ball mill section of the concentrator.



At left, Kam-Kotia's hoist room is shown. Larger equipment will be installed this year to increase hoisting capacity to 100,000 tons monthly.

- 2) Renovations were made to the machine shop to provide a plate shop.
- 3) Additional space was provided for engineering and geology departments.

New Equipment

The following equipment was purchased in 1966, and, except where noted, was installed and is now in service.

EQUIPMENT — Major Items

- 1 — 85 cu. ft. loading pocket.
- 1 — 50 H.P. vacuum pump.
- 2 — 700 G.P.M. 1,100 ft. head 250 H.P. mine pumps.
- 1 — 400 K.W. 2,200 - 550 volt substation.
- 1 — 7,500 K.W. 115 K.V. - 27,800 volt substation (not installed).
- 1 — 2,000 K.W. 27,800 - 550 volt substation (not installed).
- 1 — 36 x 48 jaw crusher (not installed).
- 1 — 5½ Symons Cone Crusher (Standard) (not installed).
- 1 — 12 ft. x 84 inch 2,100 H.P. mine hoist (not installed).
- 1 — Dust collector for U.G. crusher station (not installed).
- 1 — 42 inch vibrating rock feeder (not installed).
- 1 — ½ ton 1966 pick up truck.
- 2 — 400 ampere motor generator welders.
- 2 — 30 H.P. 3 drum electric hoists.
- 2 — Mine Loaders Model 21.
- 2 — 1½ ton mine locomotives.
- 10 — 60 cu. ft. mine cars.

Total cost of buildings was \$26,830 and for equipment, the cost was \$284,200 with \$383,000 committed to be paid in 1967.

Exploration and shaft sinking costs were — drifting and x-cutting — \$263,244, diamond drilling — \$201,271, and shaft sinking — \$415,020.

The total cost of the shaft sinking project, including collar and set up, was \$476,810 which includes \$61,790 spent in 1965.

PERSONNEL RELATIONS AND LABOUR FORCE

Total force at December 31st, 1966, was:

Staff	46
Crew	222

Total 268 as compared with 256 at December 31st, 1965. The bulk of the work force was stable, with a high turnover in the mine force. However, the turnover affected a small percentage of the total mine crew. While no phase of the operation suffered from a shortage of labour, labour supply was tight, particularly in the summer and early fall months.

Relations with employees and their bargaining agent through the year were excellent.

Mr. W. Hogg, who had been Chief Engineer and Geologist for the company since October, 1960, resigned to accept another position and I record our appreciation of Mr. Hogg's services. Mr. Hogg was replaced by F. Aspinall as Mine Engineer and R. Somerville as Chief Geologist, both men having worked under Mr. Hogg's supervision for the past two years.

ACKNOWLEDGEMENT

I again record my appreciation of the staff and crew who continue to make your company's Kam-Kotia operation successful.

The consideration, understanding and support of the President and Directors in the past years is gratefully acknowledged.

Respectfully submitted,

G. W. WALKEY,
General Manager.

February 7, 1967

PROPERTY MAP
KAM-KOTIA MINES LIMITED
KAMISKOTIA-TIMMINS AREA

